

Work Order ID 65402

Page 1

January 17, 2011 7:34:25 AM

Item ID: D205-634-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/17/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2580

Rev.D DEO-D1

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG003

N/A

110

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio 16

2-Cut tubes as per Dwg. D2580

3- scribe batch# in aft end of tube

11-1-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 65402

January 17, 2011 7:34:44 AM



Page 2

Item ID: D205-634-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/17/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
Skidtubes	Memo	0.00							
Skidtubes	1- Deburr ends and remove bending marks								
	2- Prepare tube for swaging as per QSI 002								
130	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									

BB

11/01/20

1

0

BE 11/01/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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January 17, 2011 7:34:44 AM

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Revision ID:

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Item Name: Replacement Skidtube

Start Date: 1/17/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

0.00



Skidtubes

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI004
A/R□□□ Aluminum Rod

MI16577

BE 11/01/26

2-Grind welds on step as per Dwg D2580

BE 11/01/26

3-Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002 and dwg. Hold x-bolt with DT9701 Use tube expander 1/2 x17G to start expansion and finish with 1/2 x 18G to achieve dwg dimension.

DP 11/02/07

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Deburr

6-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Deburr

BB

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

11/02/08

150

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

S1102/08

40

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 65402

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Item ID: D205-634-041

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Start Date: 1/17/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC5- Inspect part completeness to step on W/O

0.00



8/11/02/08

QC

Memo

0.00

Quality Control

170

Pressure Wash per QSI005 4.3

0.00



=)

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd
cap out of solution.

1 of 11/02/10

180

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



M 115951

Powdercoat

Memo

0.00

Powder Coating

START TIME: 1:25
OVEN TEMPERATURE: 520°
FINISH TIME: 1:55

1 BL 11-2-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Work Order ID 65402

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Item ID: D205-634-041

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Item Name: Replacement Skidtube

Start Date: 1/17/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 0/22 11/02/15

PL11-02-22

0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates

✓ A/R ☐ ☐ ☐ Sikaflex-291 ☐ M1151/4 ☐

Sikaflex expire date: 11/01

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

✓ 3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with

✓ Sikaflex. Clean excess adhesive

A/R ☐ ☐ ☐ Sikaflex-291 ☐ M1151/4 ☐

Sikaflex expire date: 11/01

✓ 5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch: M116402

1 0 11/02/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 65402

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Item ID: D205-634-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/17/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/11 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

210



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

Sulca/16

220



Packaging

Packaging

Packaging

0.00

Memo

0.00

Identify and pack for shipping as per PPPD205-634-041

Location: _____

PPP Rev: _____

PPP 65975

11/21/10

230



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

11/02/22
MF
11-02-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 1

January 17, 2011 7:34:21 AM

Work Order ID: 65402

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube



Start Date: 1/17/11

Required Date: 1/28/11

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30
 KJ IPP Rev P 10.02.19
 per PAR09-043 EC verified by:DD
 IPP Rev. O 06.02.28 Added paperwork EC
 IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM IPP Rev:Q
 10.12.01 as per chg003 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D4202-1		Manufactured	No			140	Each	106.0000	20	20			
---------	--	--------------	----	--	--	-----	------	----------	----	----	--	--	--



Spacer

Location	Loc Qty	Loc Code
----------	---------	----------

LG	106	
----	-----	--

64608	106	
-------	-----	--

D2580-1		Manufactured	No			110	Each	7.0000	1	1			
---------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--



205 Skidtube bent detail

Location	Loc Qty	Loc Code
----------	---------	----------

LG	4	
----	---	--

63050	2	
-------	---	--

63051	2	
-------	---	--

ST046	3	
-------	---	--

59856	1	
-------	---	--

64601	2	
-------	---	--

D2576-3		Manufactured	No			140	Each	63.0000	1	1			
---------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--



Step (maching detail)

Location	Loc Qty	Loc Code
----------	---------	----------

LG	63	
----	----	--

46661	15	
-------	----	--

52215	48	
-------	----	--

BE 1/16/07
 865529 (20)

1 11-1-19

1 BE 1/16/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

January 17, 2011 7:34:22 AM

Work Order ID: 65402

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 1/17/11

Required Date: 1/28/11

Start Qty: 1.00

Required Qty: 1.00

D2855

Manufactured No

200

Each

54.0000

1

1



Cap



11/02/15

Location

Loc Qty

Loc Code

FP6

3

56613

1

63634

2

ST026

51

50513

1

50770

28

51539

2

53791

20

x1

AN3-5A

Purchased

No

200

Each

885.0000

2

2



Bolt



11/02/15

Location

Loc Qty

Loc Code

ST350

885

115016

385

115371

500

x2

AN960JD10L

NAS1149D0332J

Purchased

No

200

Each

0.0000

2

2



Washer

1116441



(x2) 11/02/15

ALS7-1032-130

Purchased

No

200

Each

1,628.000

50

50



Insert



11/02/15

Location

Loc Qty

Loc Code

FP

689

115079

689

ST282

939

113238

17

115502

500

115581

422

x50

January 17, 2011 7:34:22 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

January 17, 2011 7:34:22 AM

Work Order ID: 65402

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 1/17/11

Required Date: 1/28/11

Start Qty: 1.00

Required Qty: 1.00

AN3C4A Purchased No 200 Each 1,233.000 50 50



BOLT



HL 11/02/15

Location

Loc Qty

Loc Code

ST350

1233

M 116704

X 50

115300

25

115936

8

116075

1000

116590

200

AN960C10L NAS1149C0332 Purchased No



washer

200 Each 25.0000 50 50

M 116304



X 50 HL 11/02/15

Location

Loc Qty

Loc Code

ST245

25

107534

25

D3566-13 Manufactured No



Gasket

200 Each 26.0000 1 1



HL 11/02/15

Location

Loc Qty

Loc Code

FP012

6

61996

6

FP014

20

64070

20

X 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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January 17, 2011 7:34:23 AM

Work Order ID: 65402

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 1/17/11

Required Date: 1/28/11

Start Qty: 1.00

Required Qty: 1.00

D3566-5 Manufactured No 200 Each 13.0000 1 1



Gasket



Handwritten: 11/02/15

Location

Loc Qty

Loc Code

FP 64789
FP015 63574

12
12
1
1

B66146

X1

D3566-1 Manufactured No 200 Each 6.0000 2 2



Gasket



Handwritten: 11/02/15

Location

Loc Qty

Loc Code

FP015 57715
63573

6
1
5

B66129

X2

D3564-11 Manufactured No 200 Each 8.0000 1 1



Wearshoe



Handwritten: 11/02/15

Location

Loc Qty

Loc Code

FP019 62236

8
8

B65159

X1

D3564-13 Manufactured No 200 Each 16.0000 1 1



Wearshoe



Handwritten: 11/02/15

Location

Loc Qty

Loc Code

FP17 59660
61828
62229

16
1
3
12

X1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Work Order ID: 65402



Parent Item: D205-634-041



Parent Item Name: Replacement Skidtube

Start Date: 1/17/11

Required Date: 1/28/11

Start Qty: 1.00

Required Qty: 1.00

D3564-9

Manufactured No

200

Each

17.0000

1

1



Wearshoe



xl 1/10/2/15

Location

Loc Qty

Loc Code

FP
55334
FP019
61709
FP19
62238

1
1
1
1
15
15

xl

D3564-5

Manufactured No

200

Each

22.0000

1

1



Wearshoe



xl 1/10/2/15

Location

Loc Qty

Loc Code

FG
34806
FP19
57525
58709
FP-19
63575
65058

1
1
2
1
1
19
8
11

1366 1-18

yl

D2594-3

Manufactured No

200

Each

739.0000

16

16



O-Ring, 205 Skidtube



xl 1/10/2/15

Location

Loc Qty

Loc Code

FP
55546
58191
59358
fpa
61762

43
19
12
12
696
696

xl6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item Name: Replacement Skidtube

Start Date: 1/17/11

Required Date: 1/28/11

Start Qty: 1.00

Required Qty: 1.00

D2594-1

Manufactured No

200

Each

235.0000

16

16



Plug, 205 Skidtube



Handwritten: 16 1/28/11

Location

Loc Qty

Loc Code

FP

183

Handwritten: B65980

Handwritten: x16

42807

112

55002

71

FP14

52

58434

15

62893

37

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY SCALE NTS	
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

RELEASED
07.06.28 *[Signature]***DEO ATTACHED**

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

*ulb 65402***GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:
SEE NOTES ON
PAGE 2 FOR D2580-041 AND
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Diagram illustrating the underside of the D2576-3 step. The diagram shows a cross-section of the step with the following labels and features:

- GRIND FLUSH (4 PLACES)**: Indicated by four small circles on the underside of the step.
- GRIND FLUSH**: Indicated by a small circle on the outer edge of the step.
- D2576-3 STEP**: The main component being shown.
- LOCATION RIDGE ON UNDERSIDE OF D2576**: A ridge line on the underside of the step.
- 1/4"**: A dimension indicating the thickness of the step.

Technical drawing of a circular plate with a central hole and a rectangular slot. The drawing includes the following labels and dimensions:

- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)**: Points to two small circles on the top edge of the plate.
- #0.208**: Dimension for the diameter of the two small circles.
- SEAL WITH SIKAFLEX-241/-291**: Points to the rectangular slot.
- AN3-5A BOLT (1)**: Points to the bolt passing through the central hole.
- AN960JD10L WASHER (1)**: Points to the washer under the bolt head.
- (2 PLACES)**: Points to the two small circles on the top edge.
- D2855 CAP**: Points to the central hole.
- 0.40**: Dimension for the thickness of the plate.

Diagram illustrating the assembly of the D2579 spacer. The diagram shows a circular component with a central web and two grinding holes. The following steps are provided for assembly:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO ± 0.437 X 1.00 DEEP

Labels in the diagram include: D2579 SPACER, D2596 WEB (REF), and ALS7-1032-130 (REF) (TYP 50 PLACES).

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

37.50
DISTANCE TO AFT END
OF D2596 WEB
3 7
1.750 1.750
#0.508 (TYP.)
(40 PLACES)
REFER TO DETAIL A
REFER TO DETAIL A
8.750
17.375
26.000
34.188
57.313 (REF)
7 EQUAL SPACES
8.188 PITCH
38.0
91.500
190.0
(D2500-1)

D3560-041 ASSEMBLY DETAIL B

WELD AS PER DETAIL B

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

0.5 1.5 1.5 D P P P P P P P






REFER TO DETAIL C

D3566-1 D3566-5 D3566-1 D3566-13

D3564-11 D3564-5 D3564-9 D3564-13

AN3C4A BOLT (1)
AN960C10L WASHER (1)
(50 PLACES)

DESIGN DRAWN BY

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	CHECKED 	APPROVED 	DRAWING NO. D2580	REV. D SHEET 2 OF 3
	DATE 07.02.27	TITLE 205 SKIDTUBE ASSEMBLY		SCALE 1:24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Diagram of a circular cross-section of a pipe with four internal stiffeners. The stiffeners are spaced 3.500 inches apart. The distance from the outer edge of the pipe to the center of each stiffener is 1.750 inches.

RELEASED
07-06-78

Diagram illustrating the underside of the D2576-3 step, showing the locations for grinding flush and the location ridge on the underside of D2576.

Labels in the diagram include:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- GRIND FLUSH
- LOCATION RIDGE ON UNDERSIDE OF D2576

DETAIL G
SCALE 5:24

DRILL PRIOR TO D2855 CAP
INSTALLATION (2 PLACES)

AN3-5A BOLT (1)
AN96JDI10L WASHER (1)
(2 PLACES)

D2855 CAP

SEAL WITH
SIKAFLEX-241/-291

SEE NOTE ii)

0.40

D2579 SPACER

WEB (REF)

1.12 (REF)

AFTER PERFORM
1. CHA
2. INS
3. WE

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO #0.437 X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE
WITH THE SPACER AT THIS LOCATION

37.50
DISTANCE TO AFT END
OF D2596 WEB
3 7
REFER TO DETAIL A
1.750 1.750
#0.508 (TYP.)
(40 PLACES)
REFER TO DETAIL E
8.750
17.375
26.000
34.188
57.313 (REF)
7 EQUAL SPACES
8.188 PITCH
38.0 91.500
190.0
(D2500-1)

[illegible]

DETAILED VIEW OF AFT SECTION

WELD AS PER DETAIL F

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

NO C'BORE NO PLUG

NO C'BORE NO PLUG

NO C'BORE NO PLUG

D3566-1

D3566-5

D3566-1

D3566-13

D3564-11

D3564-5

D3564-9

D3564-13

AN3C4A BOLT (1)

AN96OC10L WASHER (1)

(50 PLACES)

DESIGN	DRAWN BY

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DESIGN

PU

CHECKED *ld*

7

DATE _____

07.02.27

DRAWN BY

PL

APPROVED	
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7

DART

DART AEROSPACE LTD.
HAYKESBURY, ONTARIO, CANADA

DRAWING NO.

02580

02500
TITLE

FILE	DATE	TIME	BY	REMARKS
100-100000	10-10-1964	10:00	W. J.

RE

SHEET 3 OF 3

DATE: 10/10/2018

.....

RE

30

50

50

DRAWING NO. D2580	TITLE 205 SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D2580-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>L</i>	MFG. APPR. <i>RE</i>	APPROVED <i>MP</i>		DE APPR. <i>MP</i>		
DATE 10.09.22	DATE 10.11.04	DATE 10.11.04	DATE 10/11/04		DATE 10.11.04		

PURPOSE:

CHANGE ALL WELDED CROSSBOLT SPACERS TO SWAGED SPACERS

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

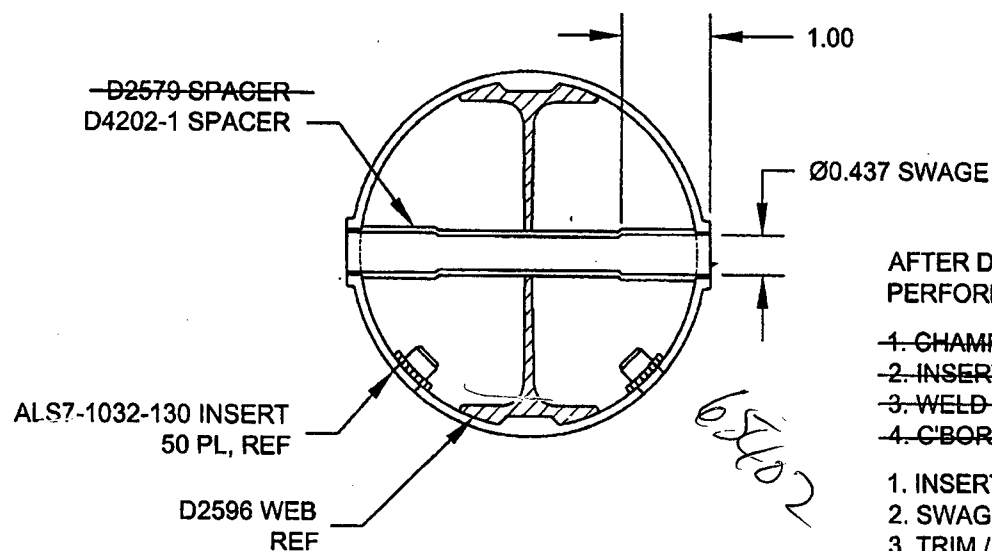
WAS

QTY	QTY	PART NUMBER	DESCRIPTION
-041	-045		
20	24	D2579	CROSS BOLT SPACER

IS

20	24	D4202-1	SPACER
----	----	---------	--------

SECTION D-D & SECTION H-H ARE AMENDED AS FOLLOWS:



SECTION D-D
NOT TO SCALE

SECTION H-H
NOT TO SCALE

RELEASED
2010-11-18
MP

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
 2. INSERT D2579 SPACER (20 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP
1. INSERT D4202-1 SPACER, 20 PL (-041) OR 24 PL (-045)
 2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
 3. TRIM / GRIND FLUSH PER QSI 002

